

Sanitary Sewer System Smoke Testing

A smoke test investigation is an Inflow & Infiltration project that is conducted when system flow monitoring indicates higher sewer flows during periods of rainfall. This testing procedure helps to identify potential sources of inflow or infiltration into the sanitary sewer system.

How is it done?

Smoke testing is done by placing a smoke generator over a sanitary sewer manhole. A ventilation fan is then attached to blow smoke through a section of sewer main. The smoke will travel through the sewer main and service lines. Service lines are the smaller diameter pipe that runs from the sewer main to your house/business, often referred to as sewer laterals.

Public Works crews will monitor where the smoke exits the sanitary sewer system. Smoke traveling up service lines should release through ventilation pipes on the roof of your home/business, unless one of the following situation exists:

- You have drain traps that are seldom used and do not have water in them. If you have any drains that are rarely used, pour water in the drain to fill the drain trap; this should prevent smoke from entering the building.
- A plumbing defect is present. If you observe any of the smoke coming from locations within your home/business that are not an apparent part of your plumbing system, contact one of the on-site wastewater personnel and they will work with you to determine the source.

What if smoke enters my home?

The smoke is not toxic or staining and should typically release through your roof vents. However, if smoke does enter your home/business, open windows and doors to allow the smoke to disperse, and contact one of the on-site personnel who can assist you in finding out why and where the smoke entered the building.

What to Expect

- While in your area, crews conduct smoke testing between the hours of 7:30 AM to 4:00 PM, Monday - Friday.
- Crews test several hundred feet of sanitary sewer main at one time. The total time to smoke test one section of sewer main is approximately 15 to 20 minutes.
- Residents that are connected to a section of sewer main that is going to be tested will be notified by door hanger the day before smoke testing takes place.
- The Police and Fire Departments will be notified in advance of smoke testing.
- A smoke generator will be placed on a sanitary sewer manhole and smoke will be forced through the sewer main using a ventilation fan
- The smoke will travel the length of the sewer main and any connecting pipes.
- If you do not have any deficiencies in your plumbing the smoke will release through the ventilation pipes on your roof.

Although the smoke product utilized by Public Works is specifically designed for this testing purpose and is relatively harmless, it is prudent to relay the following manufacturers concerns:

- The smoke may cause temporary irritation to nasal passages. Any smoke irritation should be temporary and should quickly disappear after exposure has ceased.
- Persons with heart and/or respiratory ailments should leave the home/business during the testing. Please contact Public Works at 253-447-4319 prior to the testing dates if you suffer from either condition.
- As a precaution, be sure pets are provided with proper ventilation. Pets quartered in confined areas with no exit available will require alternative arrangements during the testing.
- Normally, the smoke will leave no visible residue. If smoke enters your home/business, and you find that residue has formed as a result, it can be easily removed with soap and water.

For more information

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